IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF MISSOURI ST. JOSEPH DIVISION

PROVISUR TECHNOLOGIES, INC.,)
Plaintiff,)
V.) Case No. 19-CV-6021-SRB
WEBER, INC., TEXTOR, INC., WEBER MASCHINEBAU GMBH BREIDENBACH, WEBER MASCHINENBAU GMBH NEUBRANDENBURG, and TEXTOR MASCHINENBAU GMBH,)))))
Defendants.)

ORDER

This patent-infringement suit between Plaintiff Provisur Technologies, Inc. ("Provisur") and Defendants Weber, Inc. et al.¹ ("Weber") involves four patents relating to commercial meat and cheese slicing and processing machines. Those four patents (the "Patents-at-Issue") are as follows: United States Patent Nos. 8,322,573 ("the '537 Patent"); 7,605,936 ("the '936 Patent"); 6,669,005 ("the '005 Patent"); and 6,997,089 ("the '089 Patent"). The purpose of this Order is to construe nine disputed terms appearing in the Patents-at-Issue.

I. BACKGROUND

Provisur initiated this suit, in addition to a separate related patent-infringement action,² alleging Weber is actively infringing the Patents-at-Issue. Broadly, the machinery underlying this patent-infringement suit is a high-speed industrial slicing and packaging machine comprised

¹ Defendants in this suit are interrelated corporate entities and subsidiaries that, for purposes of this Order, are referred to collectively as Weber and are distinguished individually only where needed.

² See Provisur Technologies, Inc. v. Weber Inc., et al. ("Provisur II"), Case No. 20-CV-6069-SRB (W.D. Mo.) (Bough, J. presiding). Given the Court's entry of a companion claim construction order in *Provisur II*, the Court incorporates the relevant background facts discussed therein and declines to repeat them here.

of a series of belts, conveyors, scanners, sensors, and packaging parts. Bulk food items—such as loaves or blocks of meat or cheese, referred to generally as food articles or products—are loaded into the slicer, sliced, and transported down the line for additional processing, sorting, weighing, and packaging. The Patents-at-Issue involve different mechanical components that play distinct roles in this overall conveyor and packaging system.

Prior to the commencement of these claim construction proceedings, the Patents-at-Issue were extensively litigated before the U.S. Patent and Trademark Office's ("PTO") Patent Trial and Appeal Board ("PTAB"). In late 2019, Weber filed nine petitions seeking *inter partes* review ("IPR") of the patents asserted in this infringement action. Over the course of the next eighteen months, the PTAB issued its institution decisions and, in some cases, gave final written decisions invalidating some of the claims in the asserted patents while preserving others. Where applicable, the Court references the PTAB's final decisions and their effect on the construction of the disputed terms in the Patents-at-Issue.

On June 9, 2021, Weber filed an opening claim construction brief (Doc. #147) pursuant to Patent Local Rule 4.5(a), asking the Court to construe nine disputed claim terms asserted in the Patents-at-Issue. Provisur filed its responsive brief on June 30, 2021 (Doc. #150), and Weber filed a reply brief on July 14, 2021 (Doc. #158). The Court held a claim-construction hearing (i.e., *Markman* hearing) on August 2, 2021. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996); Patent L.R. 4.6. The following nine disputed terms appear in the below-enumerated claims:

- (1) "main conveyor"/ "food product main conveyor"—'537 Patent (Claims 1, 8–10);
- (2) "vacancy detector"/ "sensor"—'537 Patent (Claims 1, 8–9);
- (3) "vacant food product position"/ "vacant food product location"—'537 Patent (Claims 1, 8–10);

- (4) "a first row and a longitudinally displaced second row"—'936 Patent (Claim 10);
- (5) "food product drafts"—'936 Patent (Claim 10);
- (6) "a longitudinal position of said end is movable between an extended position and a retracted position . . . by longitudinal positioning of said roller"—"005 Patent (Claim 1);
- (7) "precisely control"/ "precise positioning"/ "exact position"—'005 Patent (Claims 1–3);
- (8) "top slice"—'089 Patent (Claim 9);
- (9) "input into said memory section a two-dimensional pixel field corresponding to an image captured of a surface area of a top slice of said stack of slices located on said conveyor"—'089 Patent (Claim 9).

Upon review and consideration of the patent claims, specifications, and the prosecution history, in addition to the parties' claim-construction briefs, applicable law, and presentations by counsel, the Court hereby issues this Order to construe the disputed terms in the Patents-at-Issue. For the reasons discussed herein, the Court construes the terms as follows:

DISPUTED TERMS	Construction
"main conveyor"/ "food product main conveyor"	primary conveyor that moves food products away from the food product machine
"vacancy detector"/ "sensor"	a device that actually detects a vacant food product position on the conveyor
"vacant food product position"/ "vacant food product location"	position at which food product is missing
"a first row and a longitudinally displaced second row"	a first row and a lengthwise second row
"food product drafts"	sliced foods or sliced food product
"a longitudinal position of said end is moveable between an extended position and a retracted position by longitudinal positioning of said roller"	moving the roller causes the end of the belt's conveying surface to move between an extended position and a retracted position
"precisely control"/ "precise positioning"/ "exact position"	plain and ordinary meaning
"top slice"	topmost already cut slice
"input into said memory section a two- dimensional pixel field corresponding to an image captured of a surface area of a top slice of said stack of slices located on said conveyor"	input into said memory section a two- dimensional pixel field corresponding to an image captured of a surface area of a topmost already cut slice of said stack of slices located on said conveyor

II. LEGAL STANDARD

Claim construction, "including terms of art," is a matter of law. *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 321 (2015) (citing *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 388–89 (1996)). This Court looks to the Federal Circuit for persuasive guidance when evaluating patent-related matters, *U.S. Water Servs., Inc. v. ChemTreat, Inc.*, 794 F.3d 966, 970 (8th Cir. 2015), and the following claim-construction analysis is guided by the Federal Circuit's landmark opinion in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005). When construing claims, the Court begins with the words of the claim, which define the invention and its scope. Claim terms "are generally given their ordinary and customary meaning"—that is, "the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Id.* at 1312–13 (citations omitted).

In ascertaining the ordinary and customary meaning of a patent claim term, a court may consider various sources of information, which are traditionally categorized as either "intrinsic" or "extrinsic" evidence. *See id.* at 1314. Intrinsic evidence generally encompasses "the words of the claims themselves," the specifications of the patent, and the patent's prosecution history. *Id.* The specifications section of a patent, which describes the specific embodiments of the invention in a "full" and "exact manner," is "highly relevant to the claim construction analysis" and can be the "single best guide to the meaning of the disputed term." *Id.* at 1311–12, 1315 (citing 35 U.S.C. § 112); *accord Vitronics Corp v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996) ("The specification contains a written description of the invention which must be clear and complete enough to enable those of ordinary skill in the art to make and use it. Thus, the specification is always highly relevant to the claim construction analysis."). Additionally, the

prosecution history of the patent, meaning the record of the proceedings before the U.S. Patent and Trademark Office ("PTO"), is also helpful in the claim-construction analysis and provides the Court with "evidence of how the PTO and the inventor understood the patent." *Phillips*, 415 F.3d at 1317.

A court may also consider sources of extrinsic evidence when construing a claim term, which "consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises." *Id.* (citation omitted). These sources of evidence are often utilized to "provide background on the technology at issue, to explain how an invention works, to ensure that the court's understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field." *Id.* at 1318. However, the intrinsic record remains more significant to determining the legally operative meaning of claim language, and extrinsic evidence cannot be used to "vary or contradict the claim language" itself. *Vitronics Corp.*, 90 F.3d at 158; *see also Phillips*, 415 F.3d at 1318 (noting "extrinsic evidence in general [i]s less reliable than the patent and its prosecution history in determining how to read claim terms").

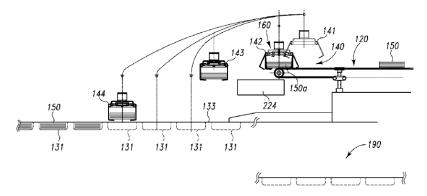
III. DISCUSSION

The parties dispute the meaning of nine terms asserted across the Patents-at-Issue. Each disputed term is addressed below, organized by the patent containing the disputed term.³ When applicable, the Court adopts the parties' agreed-upon definitions and notes such instances herein.

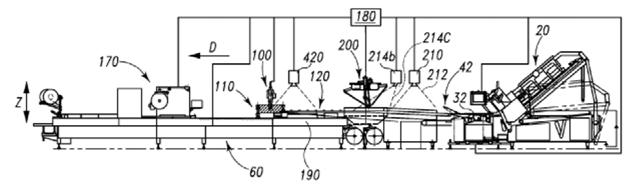
³ In its opening brief, Weber states that for purposes of construing the disputed claim terms, a person of ordinary skill in the art of the technical field of the Patents-at-Issue at the relevant time would typically have had: "(1) a bachelor's degree (or equivalent) in mechanical engineering (or a similar field) and at least two years of experience working on food processing and/or packaging systems (or in a similar field); or (2) at least seven years of experience working on food processing and/or packaging systems (or in a similar field)." (Doc. #147, p. 7.) Provisur does not refute this proffered standard, and the Court finds it applies to the claim construction discussed herein.

A. The '537 Patent

Broadly, the '537 Patent describes a food-product handling system containing a vacancy reduction system. The vacancy reduction system, which is comprised of various conveyor belts, detectors, controllers, and robotic components, ensures that sliced food articles are appropriately weighed and packaged. An illustrative drawing of the food vacancy reduction system is below:



(Doc. #147-1, p. 2.)⁴ The food vacancy reduction system is part of a larger mechanical conveyor system that slices the food articles and transports them down the line for weighing, classification, and packaging. An illustrative drawing of the entire process, viewed from the side, is below:



(Doc. #147-1, p. 4.)

The parties seek construction of three disputed terms in the '537 Patent. Provisur urges the Court to adopt the plain and ordinary meaning for each disputed term, while Weber contends Provisur's proposed constructions are overly broad and incongruous with the claim language.

⁴ All page citations herein refer to pagination automatically generated by CM/ECF.

1. Term I: "main conveyor"/ "food product main conveyor"

The parties agree the terms "main conveyor" and "food product main conveyor" are used interchangeably throughout the '537 Patent, and that the construction of one term will extend to the other. The parties disagree, however, on how the term(s) should be construed. Below is a table showing the competing constructions advanced by Provisur and Weber, respectively:

PROVISUR'S PROPOSED CONSTRUCTION	WEBER'S PROPOSED CONSTRUCTION
no construction necessary or, in the alternative, the plain and ordinary meaning, including a conveyor for conveying food product away from a food product machine	primary conveyor that moves food products away from the food product machine and toward the packages

Illustrative examples of the use of the disputed term(s) appear in Claim 1 and Claim 8:

- A food product position vacancy reduction system, comprising:
 a main conveyor configured to move food products in a conveying direction in rows and at least two columns along the conveying direction;
- . . .
- 8. A food product location vacancy reduction system, comprising:

 a food product main conveyor to move food products in a conveying direction in rows and at least two columns along the conveying direction[.]

(Doc. #147-1, p. 22, 15:5–9; 63–67) (emphasis added).

Weber emphasizes that the use of the adjective "main" to modify the word "conveyor" is significant and, to a person of ordinary skill in the art, distinguishes this specific conveyor from the other conveyors used as part of the overall processing and packaging system. Weber argues that Provisur's proposed construction is overly broad and, if adopted, would "improperly include the packaging machine within the scope of the recited 'main conveyor'" in contravention of the patent's language and its specifications. (Doc. #147, p. 11.) Provisur disagrees, arguing that the

plain and ordinary meaning of the term should control and that a "main conveyor" is "simply a conveyor onto which the robot deposits food product." (Doc. #150, p. 13.)

The crux of the parties' dispute is the scope of the word "main" and whether that term encompasses any conveyor that moves food products away from the food product machine (i.e., the slicer), or instead refers to a specific conveyor. *See O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) (in the context of claim construction, "when the parties present a fundamental dispute regarding the scope of a claim term, it is the court's duty to resolve it"). Upon review, the Court agrees with Weber's construction because it comports most closely with the claim language and is supported by the intrinsic record. The claim includes the term "main" for a reason—to identify and distinguish a particular conveyor from the many other conveyors used in the food vacancy reduction system. The claims and specifications of the '537 Patent describe multiple conveyors (e.g., a "classifying conveyor," "staging conveyor," "output conveyor," etc.) and identifies each one with language explaining its distinct operational function or purpose. (Doc. #147-1, p. 16, 4:16, 38, 63.)

Similarly, the claim language clearly identifies a "main conveyor" as a specific conveyor with a particular function in the food vacancy detection system, a function which is consistently described in both the claims and the specifications. *See Phillips*, 415 F.3d at 1314 ("Quite apart from the written description and the prosecution history, the claims themselves provide substantial guidance as to the meaning of particular claim terms."). Indeed, the patent summary makes clear that the "main conveyor" is a crucial, necessary component of the overall invention. (Doc. #147-1, p. 15, 2:44–46); *see also Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1372 (Fed. Cir. 2014) (noting that patent specifications which describe a particular feature as an essential or "very important" aspect of the invention characterize the scope of the invention as a

whole) (collecting cases finding the same). Weber's proposed inclusion of the term "primary" in its construction not only comports with the plain and ordinary meaning of the word "main," but it also connotes the specific and particular role of the "main conveyor" as an ordinary person skilled in the art would understand it.

In contrast, Provisur's proposed construction omits any such identifying language. It simply describes "a conveyor," which fails to give meaning to the term "main" despite its intentional use by the patent holder. *See Merck & Co. v. Teva Pharms. USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005) ("A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so."). Additionally, the Court finds Provisur, by defining the disputed term to include any conveyor that conveys food product away from a slicer, attempts to broaden the scope of the term in a manner inconsistent with the word choices made by the patentee. *See Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1349 (Fed. Cir. 2004) (noting a court "cannot construe the claims to cover subject matter broader than that which the patentee itself regarded as comprising its inventions"). The claim language, bolstered by the specifications, clearly explain a "main conveyor" in a more restrictive manner than Provisur's proposed construction.

Provisur contends that the "main conveyor" is not necessarily the "primary" conveyor because the term "conveyor 120" is intermittently substituted for the "main conveyor" term in some of the specifications. However, this argument is unpersuasive. Provisur does not identify another conveyor described by the '537 Patent that performs the same purpose and function as the "main conveyor," nor does Provisur disagree that "primary" is the plain meaning of "main" as used within the context of the patent. Ultimately, the Court finds Weber's inclusion of the

word "primary" in the construction of the term "main conveyor" is supported by both the claim language and the '537 Patent's specifications.

Both parties advanced constructions that included the phrase "away from a food product machine" to describe the conveying direction of the "main conveyor," and the Court agrees this construction captures the plain and ordinary meaning of the term as it would be understood by an ordinary person skilled in the art. However, the Court declines to add the phrase "and toward the packages" as suggested by Weber. In light of the patent as a whole, the Court believes including Weber's proposed phrasing would be superfluous and unnecessary. *See Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (holding that only claim terms that are in controversy need to be construed and "only to the extent necessary to resolve the controversy"). In sum, the Court construes the term "main conveyor" as follows:

TERM	Construction
"main conveyor" / "food product main	primary conveyor that moves food products
conveyor"	away from the food product machine

2. Term II: "vacancy detector"/ "sensor"

The second disputed term in the '537 Patent is "vacancy detector"/ "sensor." Again, the parties agree the terms "vacancy detector" and "sensor" are used interchangeably throughout the '537 Patent, and that the construction of one term will extend to the other. Unlike some of the other disputed terms at issue in this case, "vacancy detector" was defined and construed by the PTAB in the IPR of the '537 Patent. While Provisur and Weber agree the PTAB's construction should be adopted, the parties disagree on the proper way to relay the PTAB's construction to a jury. The parties' differing constructions appear in the table below:

PROVISUR'S PROPOSED CONSTRUCTION	WEBER'S PROPOSED CONSTRUCTION
plain and ordinary meaning, including a device that detects a vacant food product position on the conveyor	sensor that determines a [vacant food product position/location]

The PTAB, in its decision denying institution of *inter partes* review of the '537 Patent, stated:

[W]e construe "vacancy detector" in claims 1 and 18 and "sensor" in claim 8 as requiring a device that detects a vacant food product position on the conveyor.

(Doc. #147-9, p. 12.)

During the *Markman* hearing, the parties agreed that the differences between their two proposed constructions are minimal. The only dispute is whether Provisur's construction reflects that the "vacancy detector" or "sensor" is a device which actually detects a vacant position on the conveyor, rather than one merely capable of detecting a vacancy. Weber argues that including the word "determines" captures that distinction. Provisur argues that no further clarification is needed, but acknowledged during the *Markman* hearing that its victory before the PTAB on this specific issue relied on Provisur's contention that the "vacancy detector" is a device that actually detects a food product vacancy on the main conveyor.

Upon review of the PTAB's IPR decision, which the parties agree should control the construction of these disputed terms, the Court finds Provisur's construction, subject to a slight modification, best captures the PTAB's construction of the term "vacancy detector." The Court is particularly persuaded by the following excerpt from the PTAB's written decision:

[Provisur] . . . argues that the term [vacancy detector] requires a device that actually detects whether food product is vacant on a conveyor, as opposed to a device that merely produces information that could be used to determine a vacancy.

(Doc. #147-9, p. 10.) Provisur's proffered construction, with the addition of "actually," does not alter the claim scope nor does it contradict the PTAB's reasoning. Accordingly, based on the

parties' request that the Court construe this disputed term in a manner that makes the PTAB's construction to the jury clear, the Court construes the disputed term(s) as follows:

TERM	Construction
"vacancy detector" / "sensor"	a device that actually detects a vacant food product position on the conveyor

3. Term III: "vacant food product position"/ "vacant food product location"

The last disputed term(s) in the '537 patent is "vacant food product position" and "vacant food product location." Once again, the parties agree these two terms are used interchangeably throughout the '537 Patent and the construction of one term will extend to the other. The parties' proposed constructions appear in the table below:

PROVISUR'S PROPOSED CONSTRUCTION	WEBER'S PROPOSED CONSTRUCTION
no construction necessary or, in the alternative, the plain and ordinary meaning in the art, including a position that does not contain a food product	position at which food product was supposed to be provided but is not provided

Illustrative examples of the use of the disputed term(s) appear in Claim 1 and Claim 8:

1. A food product position vacancy reduction system, comprising:

.

a vacancy detector configured to detect a *vacant food product position* within the rows and at the least two columns on the main conveyor;

. . .

8. A food product location vacancy reduction system, comprising:

. . .

the robot configured to move food product from the staging area to fill a *vacant* food product location detected by the sensor on the main conveyor[.]

(Doc. #147-1, p. 22, 15:5–6, 12–14, 63–64, 16:8–10) (emphasis added).

Both parties contend their proffered constructions capture the plain and ordinary meaning of the disputed terms. Weber contends Provisur's proffered construction is broader than what is described in the '537 Patent because it defines "vacant" as any position that does not contain any

food product. Weber argues an ordinary person skilled in the art would understand that "vacant" means, within the context of the '537 Patent, a location "where there would normally be a food product, but for some reason there is not." (Doc. #147, p. 14.) Provisur argues Weber offers no reason why a jury would find the term "vacant" confusing or benefit from further construction.

Upon review, the Court agrees that Weber's proffered construction, subject to certain key modifications, captures the plain and ordinary meaning of the disputed term(s). The Court finds construction of this term is necessary given the genuine dispute between the parties regarding the scope of the word "vacant." *See O2 Micro*, 521 F.3d at 1360. The word "vacant" is generally understood, even by a lay person, to mean "absent" or "unoccupied." However, the Court finds that the term "vacant," when considered in the context of the '537 Patent and the term "vacant food product position," has a narrower meaning and is defined more restrictively.

The parties agree the main conveyor transports food products, such as meat slices or patties, down the line for processing. A review of the patent reveals that those food products do not cover or occupy the entire surface of the main conveyor; instead, they are generally grouped in stacks that are "spaced apart" or, alternatively, are shingled together in a row or "stream," depending on the specific product and its packaging needs. (Doc. #147-1, p. 15, 1:16–18, 43–46, 56–62.) In turn, there are positions on the main conveyor where food products are located as well as empty, unoccupied spaces surrounding the food product stacks or rows. The claim language of the '537 Patent describes this spaced-out configuration of the food products, explaining that a vacancy detector "detect[s] a vacant food product position within the rows and at least two columns on the main conveyor[.]" (Doc. #147-1, p. 22, 15:12–14.) Accordingly, the vacancy detector does not detect just *any* position on the main conveyor that is unoccupied

⁵ See, e.g., vacant, MERRIAM-WEBSTER DICTIONARY, https://www.merriam-webster.com/dictionary/vacant (last visited Aug. 5, 2021) (defined, in part, as "being without content or occupant" and "not put to use").

by a food product. Such a definition would include the spacing around or between the assorted stacks or piles of sliced food products, spaces that were never designed to be occupied with food products to begin with.

Instead, as argued by Weber, the vacancy detector detects vacancies within the rows or columns of the food products that are positioned the main conveyor, where the food products are supposed to be located. The specifications describe numerous scenarios that might produce such a vacancy; for example, a stack of meat slices rejected for not conforming with a predetermined product or packaging format. Regardless of the reason for the vacancy, the claim language itself makes clear that Provisur's proffered construction is broader than what is provided by the patent. Giving the words their ordinary and plain meaning, the claim language defines a "vacant food product position" or "vacant food product location" as a position on the main conveyor where a food product should be but is not. Put another way, the terms describe a position where a food product is missing—not, as Provisur argues, any position that is simply void of food product.

This definition is consistent with the specifications of the '537 Patent, which explain that "[w]hen rejected food products are taken out of the main food product stream a food product vacancy is created in the food product stream." (Doc. #147-1, p. 15, 2:26–28.) The invention is designed to promote efficiency and "maintain a food product stream with a reduced number or no food product vacancies," achieved by filling any vacancies that develop "with substitute or corrected-weight food products." (Doc. #147-1, p. 15, 2:31–39.) The specifications additionally explain that a food product vacancy is detected by vacancy detector, which is triggered when "a vacancy exists *in a particular location* on the [main] conveyor . . . shown by the absence of at least one food product as shown in . . . FIG. 6." (Doc. #141-1, pp. 12, 19, 10:50–61) (emphasis added). The Court, in looking to these specifications, does not attempt to import a limitation into

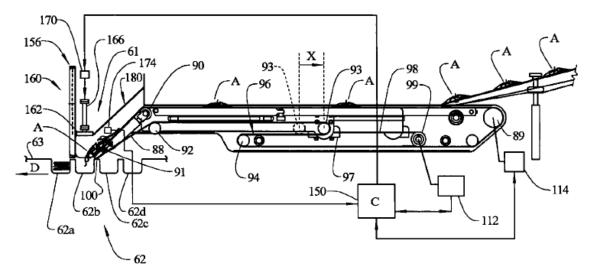
the patent claims; instead, the specifications shed light on the meaning of the claim's language and the scope of the invention intended by the patent holder. *See In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (noting "it is entirely proper to use the specification to interpret what the patentee meant by a word or phrase in the claim," which is distinct from "adding an extraneous limitation appearing in the specification").

As for the prosecution history, Provisur does not identify any in support of its position, and the Court finds it is unnecessary to consider such evidence given the plain and customary meaning of the claim language. In sum, in light of the intrinsic record, in particular the claim language itself, the Court hereby construes the term "vacant food product position" as follows:

TERM	Construction
"vacant food product position" / "vacant food product location"	position at which food product is missing

B. The '936 Patent

The '936 Patent describes a fill and packaging apparatus, a separate component of the overall food-product handling system. Broadly, the fill and packaging apparatus is a system that arranges stacks of sliced food articles and sequentially deposits them into open-top packaging containers. An illustrative drawing of the fill and packaging apparatus is below:



(Doc. #147-2, p. 2.) Unlike the '537 Patent, the PTAB instituted Weber's petition for IPR of the '936 Patent and subsequently issued a final written decision that invalided many of its asserted claims. (Doc. #116-1, pp. 47–49, 81.) Due to the PTAB's decision, only Claim 14 remains, but Claim 14 is a dependent claim which relies on the now-invalidated independent Claim 10, which contains the two disputed terms at issue in this particular patent.

1. Term IV: "a first row and a longitudinally displaced second row"

The parties dispute the meaning of the term "a first row and a longitudinally displaced second row," which appears in the invalidated Claim 10, upon which Claim 14 depends. The competing constructions advanced by the parties are set forth below:

PROVISUR'S PROPOSED CONSTRUCTION	WEBER'S PROPOSED CONSTRUCTION
no construction necessary or, in the alternative, the plain and ordinary meaning, including a first row spaced apart from a second row along a longitudinal direction	a first row and a second row perpendicular to and spaced apart along the conveying direction of the pockets

An illustrative example of the use of the disputed term appears in Claim 10:

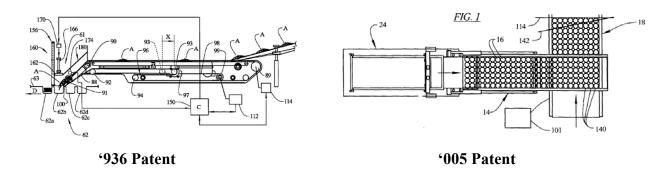
10. An apparatus for filling food product drafts into pockets formed into an elongated web of film, said pockets having open tops and arranged in rows that are displaced along a longitudinal direction and having at least *a first row and a longitudinally displaced second row* and movable with said web along said longitudinal direction[.]

(Doc. #147-2, p. 9, 6:62–67) (emphasis added).

Weber argues "the term 'longitudinally spaced-apart' is unintelligible in a vacuum" and that claim construction is necessary to clarify this term's meaning to a jury. (Doc. #147, p. 19.) Provisur disagrees, arguing the words are all commonly used and contain "no special technical jargon" requiring definition by the court. (Doc. #150, p. 21.) Provisur contends the construction proposed by Weber improperly limits the claims based on a preferred embodiment, a cardinal sin of claim construction. *See Phillips*, 415 F.3d at 1323 (citation omitted) (noting "although the

specification often describes very specific embodiments of the invention, [the Federal Circuit has] repeatedly warned against confining the claims to those embodiments"). A brief discussion of the interaction between the conveyor and packaging system puts these arguments in context.

Weber's argument, in essence, is that the word "longitudinal" is a relative term that only has meaning when considered in relation to the depositing conveyor, which transports the stacks or piles of sliced food articles and places them in the open-top packaging pockets. For example, those pockets can be positioned parallel, or "in-line," with the end of the conveyor, as shown in the '936 Patent. (Doc. #147-2, p. 2.) In other instances, the pockets are positioned perpendicular to the end of the conveyor, as shown in the '005 Patent. (Doc. #147-3, p. 3.) For purposes of a visual comparison, those two differing arrangements are portrayed below:



Weber argues the '936 Patent describes an in-line arrangement, which means the rows and lanes of the pockets must have a specific configuration. That configuration, Weber argues, requires the rows of pockets to "extend laterally, not longitudinally, across the conveyor." (Doc. #147, p. 20.) Weber's contention is that the Court, in order to properly define the scope of the '936 Patent and give meaning to the disputed term, should interpret "a longitudinally displaced second row" to mean a row "perpendicular to and spaced apart along the conveying direction of the pockets." Provisur argues the claim language does not "specify any certain direction for the

rows, let alone that the rows must be 'perpendicular to the conveying direction of the container [pockets]." (Doc. #150, p. 21.)

Upon review, the Court declines to adopt Weber's proposed construction. Weber does not identify any claim language that describes the rows of pockets to be "perpendicular to and spaced apart along the conveying direction of the pockets." Weber primarily relies on various specifications that describe different aspects of the system, such as the number of pockets in a packaging web or the placement of food products on the staging conveyor:

According to the exemplary embodiment of the invention, each group of pockets includes four rows by four lanes for 15 pockets. (Doc. #147-2, p. 8, 3:4–6.)

The drafts are conveyed spaced-spart in a stream to a staging conveyor where the stream is converted into lateral rows of drafts. (Doc. #147-2, p. 7, 1:12–14.)

Weber also cites to the '936 Patent's figures and diagrams, which show an in-line arrangement between the depositing conveyor and the pockets. (Doc. #147-2, p. 5.) However, none of these specifications show that the claim scope should be defined in the narrow manner suggested by Weber. It is well-established that claims may embrace a different subject matter than what is illustrated in a patent's embodiments or specifications, the purpose of which "are to teach and enable those of skill in the art to make and use the invention and to provide a best mode for doing so." *Phillips*, 415 F.3d at 1323 (citations omitted). A careful review of the specifications relied upon by Weber demonstrates that the patentee "is setting out specific examples of the invention" and did not intend for the claims and specifications to be coextensive. *Id*.

The arguments regarding the patent prosecution history similarly fail to show that the patentee intended to limit the scope of the claim to the embodiments and specifications of the '936 Patent. As for Weber's reliance upon expert testimony to establish that a skilled artisan would understand this disputed claim term to mean there is only one longitudinal direction in

which the rows can be configured, this argument, without more, does not compel a different result given the weight of the intrinsic evidence on this point. *See Vitronics Corp.*, 90 F.3d at 158 (noting that extrinsic evidence cannot be used to "vary or contradict the claim language" itself). In sum, the intrinsic record does not support adopting Weber's proposed construction.

Provisur contends that no construction of this disputed term is necessary. Alternatively, Provisur asks the Court to adopt "the plain and ordinary meaning, including a first row spaced apart from a second row along a longitudinal direction," as its construction of this disputed term. In both its briefing and during the *Markman* hearing, Provisur acknowledged that "lengthwise" is synonymous with "longitudinal." *See Alltrade Tools, LLC v. Olympia Grp., Inc.*, 123 F. App'x 394, 398 (Fed. Cir. 2005) ("longitudinal" means "running lengthwise") (quoting Webster's Third New International Dictionary 945 (3d. ed 1993)). Given that it is the Court's task, in claim construction, to "elaborat[e] the normally terse claim language in order to understand and explain, but not the change, the scope of the claims," *Terlep v. Brinkmann Corp.*, 418 F.3d 1379, 1382 (Fed. Cir. 2005), the Court elects to substitute "longitudinal" with "lengthwise" to provide clarity for the jury. The Court thus construes the term "a first row and a longitudinally displaced second row" as follows:

TERM	Construction
"a first row and a longitudinally displaced second row"	a first row and a lengthwise second row

2. Term V: "food product drafts"

The second disputed term in the '936 Patent is "food product drafts." Unlike the prior disputed term, "food product drafts" was defined and construed by the PTAB in the final written decision issued by the PTAB regarding the '936 Patent. (Doc. #116-1.) Provisur and Weber agree the PTAB's construction should be adopted, but Weber opposes Provisur's construction to

the extent it seeks an interpretation different from the one decided by PTAB. The two differing constructions are:

PROVISUR'S PROPOSED CONSTRUCTION	WEBER'S PROPOSED CONSTRUCTION
sliced foods or sliced food products	plain and ordinary meaning as adopted by the PTAB as "sliced foods" or "sliced food
	product"

The PTAB's final written decision regarding the '936 Patent stated, in relevant part:

[Provisur] contends that "food product drafts" recited in the claims is a term of art that means "piles, bunches or groups of thin sliced product." [Provisur] does not contend, however, that its proposed construction of "drafts" would have any effect on whether the prior art discloses the relevant limitations of the claims. Accordingly, we decline to construe "drafts" as [Provisur] proposes, but instead apply the ordinary and customary meaning of "drafts" as "sliced foods" or "sliced food product."

(Doc. #116-1, pp. 13–14.)

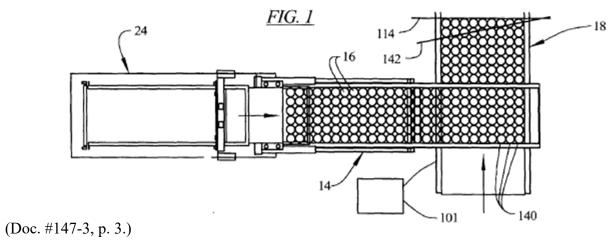
The sole dispute appears to whether Provisur's pluralization of "sliced food product" is improper. Weber urges the Court to adopt its proposed construction, which mirrors the PTAB language in its final written decision. Provisur argues the claim language explains "drafts" in the plural, and contends the plural form of food products is consistent with the claim language. Both parties agreed during the *Markman* hearing that the PTAB's construction should be adopted and that regardless of whether the term is construed as "slice food product" or "slice food products," a single "draft," as used in the '936 Patent, did not have to contain more than a single slice.

Given the parties' agreement and the apparent lack of dispute on this particular term, the Court elects to adopt to PTAB's construction of the term "food product drafts" and construes the term accordingly.

TERM	Construction
"food product drafts"	"sliced foods" or "slice food product"

C. The '005 Patent

The '005 Patent describes another separate mechanical component of the food-product handling system, a servo-controlled distribution conveyor. Broadly, this conveyor system uses two different conveyor belts to position and transport food articles (namely, meat patties) down the line for further processing. The first conveyor, a "feed conveyor," transports the patties until they are deposited onto a "downstream conveyor." An illustrative overhead drawing is below:



1. Term VI: "a longitudinal position of said end is moveable between an extended position and a retracted position . . . by longitudinal positioning of said roller"

The first disputed term at issue in the '005 Patent is "a longitudinal position of said end is moveable between an extended position and a retracted position . . . by longitudinal positioning of said roller." The crux of the parties' dispute regarding this term is how to best describe the causal relationship between the first clause of the phrase ("a longitudinal position of said end is movable between and extended position and a retracted position") and the second clause ("by longitudinal positioning of said roller"). The differing constructions are set forth below:

PROVISUR'S PROPOSED CONSTRUCTION	WEBER'S PROPOSED CONSTRUCTION
no construction necessary or, in the alternative, the plain and ordinary meaning	moving the roller causes the end of the belt's conveying surface to extend and retract between an extended position and a retracted position

An illustrative example of the use of the disputed term appears in Claim 1:

 A feed conveyor for depositing articles onto a downstream conveyor, comprising: an endless circulating belt having an upper conveying surface;

a roller controlling a belt accumulation region of said endless circulating belt, said conveying surfacing having an upstream region adapted to receive a stream of articles in rows across a lateral direction of said belt, said belt circulated to move said rows in said longitudinal direction to an end of said conveying surface, wherein said endless belt is turned over at said end, wherein circulation of said belt passes said rows off of said conveying surface to be deposited onto said downstream conveyor, and said longitudinal position of said end is movable between an extended position and a retracted position passing across at least a portion of a transverse dimension of said downstream conveyor by longitudinal positioning of said roller[.]

(Doc. #147-3, p. 9, 6:31–49) (emphasis added).⁶

A brief discussion of the machinery involved provides helpful context for this disputed term. Grossly simplified, the upper "feed" or "shuttle" conveyor includes an endless belt which is wrapped around a moveable roller. The end of the feed conveyor belt extends and retracts to deposit meat patties onto the downstream conveyor. The extension and retraction feature of the feed conveyor belt is controlled by the moveable roller powered, in part, by an electric motor. The parties agree there is a causal link between the moveable roller and the feed conveyor belt's extension-and-retraction function. The PTAB, in denying Weber's IPR petition for the '005 Patent, confirmed this causal link, stating:

[Claim] 1 requires that the longitudinal position of the roller causes the end of the feed conveyor to extend and retract.

(Doc. #147-18, p. 8.)

During the *Markman* hearing, Weber characterized this disputed phrase as a "jumble of patent jargon" that would be difficult for a jury to understand and would benefit from the Court's

⁶ While the term is recited in its entirety for illustrative purposes, the parties clarified during the *Markman* hearing that the portion of the disputed term replaced by ellipses (...) is agreed upon and needs no construction.

construction. In their briefing, Weber argues their proposed construction is consistent with the PTAB's IPR decision and mirrors the same arguments Provisur advanced during that proceeding. Provisur argues there is no real dispute about the plain and ordinary meaning of the words used in this phrase, and believes a jury would be able to understand the scope of this claim as written. Stating the claim language speaks for itself, Provisur urges the Court to not construe this term.

The Court agrees with Weber that the meanings of the terms used in this disputed phrase are not "readily apparent," either to an ordinary person skilled in the art or even a lay judge. *O2 Micro*, 521 F.3d at 1360 (citation omitted) ("[I]n many cases, the meaning of a claim term as understood by persons of skill in the art is not readily apparent."). Nor is the claim language so clear on its face that further definition or paraphrasing would be unhelpful. Even though some of the words in this disputed phrase have commonly understood meanings, such as "movable" or "end," it is still proper for the Court to construe the term to determine the ordinary meaning as it would be understood by a person skilled in the art. In doing so, the Court remains mindful that claim construction "is simply a way of elaborating the normally terse claim language in order to understand and explain, but not the change, the scope of the claims." *Terlep*, 418 F.3d at 1382.

After carefully considering the intrinsic record and the parties' briefing, the Court finds Weber's proposed construction mirrors the findings of the PTAB regarding the meaning of this particular phrase. In its written decision declining Weber's IPR petition for the '005 Patent, the PTAB concluded "the longitudinal position of the roller *causes* the end of the feed conveyor to extend and retract." (Doc. #147-18, p. 8) (emphasis added). Similarly, Weber's proposed claim construction explains "moving the roller causes the end of the belt's conveying surface to extend and retract[.]" Provisur does not dispute that it advanced this same definition—successfully—in those PTAB proceedings, nor does Provisur argue the PTAB errored in making its determination.

Furthermore, when asked during the *Markman* hearing to propose an alternative construction that would address or resolve its stated concerns, Provisur declined to do so.

Provisur's primary argument is that there is no evidence to support a construction which defines the roller as the "only cause" of the feed conveyor's movement. However, Weber does not use the word "only" in its proffered construction. Nor does the plain and ordinary meaning of the word "causes," within the context of the '005 Patent, necessarily limit the scope of this claim in such a manner.⁷ The Court is not persuaded that Weber's construction limits this claim to the extent argued by Provisur, particularly when the patent's specifications describe numerous mechanical components and systems that work together to control the extension and retraction of the feed conveyor belt. (Doc. #147-3, p. 7, 1:33–43; 2:48–59.)

In sum, the Court determines that Weber's proposed construction is in accord with the relevant PTAB decision and represents the plain and ordinary meaning of this term as it would be understood by an ordinary person skilled in the art. This construction is further bolstered by the '005 Patent's specifications, which explain that the roller's movement "controls" the feed conveyor belt's extension and retraction. (Doc. #147-3, p. 8, 4:8–10, 13–15, 25–30.) However, to reduce redundancy, the Court elects to substitute the phrase "to extend and retract between and extended position and retracted position" with the phrase "move between an extended position and a retracted position." *See PPG Indus. v. Guardian Indus. Corp.*, 156 F.3d 1351, 1355 (Fed. Cir. 1998) (noting a court is charged with defining the claim "with whatever specificity and precision is warranted by the language of the claim and the evidence bearing on the proper construction"). The Court thus construes this disputed term as follows:

⁷ See, e.g., cause, MERRIAM-WEBSTER DICTIONARY, https://www.merriam-webster.com/dictionary/cause (last visited Aug. 5, 2021) (defined, in part, as "a reason for an action or condition").

Term	Construction
"a longitudinal position of said end is	moving the roller causes the end of the belt's
moveable between an extended position and a	conveying surface to move between an
retracted position by longitudinal	extended position and a retracted position
positioning of said roller"	

2. Term VII: "precisely control"/ "precise positioning"/ "exact position"

The other disputed term(s) at issue in the '005 Patent are "precisely control," "precise positioning," and "exact positioning." The parties agree these terms are used interchangeably throughout the '005 Patent and the construction of one term will extend to the other. The parties' competing constructions appear in the table below:

PROVISUR'S PROPOSED CONSTRUCTION	WEBER'S PROPOSED CONSTRUCTION
plain and ordinary meaning, term is not indefinite	term is indefinite, not possible to construe

Illustrative examples of the use of these disputed terms appear in Claim 2 and Claim 3:

- 2. The feed conveyor according to claim 1, wherein said first and second electric motors comprise *precise positioning* motors that provide *precise positioning* feedback to said controller.
- 3. The feed conveyor according to claim 2, comprising a proximity sensor that is signal-connected to said controller, said proximity sensor communicating an *exact* position of said traction system when said end is at a home position.

(Doc. #147-3, p. 9, 6:60–67) (emphasis added).

Weber contends these disputed terms and indefinite and unable to be construed. Weber argues the words "precise" and "exact" are terms of degree and are subjective in nature, such that an ordinary person skilled in the art cannot ascertain their meaning without some type of baseline to reference or compare against. For example, Weber explains the ability to "precisely control" a speed or position as described by the '005 Patent "depends on multiple factors, including the size and operating speed of the feed conveyor and the downstream conveyor[.]" (Doc. #147, p. 26.)

Provisur disagrees, contending that "the use of relative terminology in claim language, including terms of degree, does not automatically render the claim indefinite" and that Weber fails to meet the indefiniteness standard set out by *Nautilus Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014). (Doc. #150, p. 29.)

Under *Nautilus*, "[a] patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Id.* This standard "mandates clarity, while recognizing that absolute precision is unattainable." *Id.* at 899. Generally, patents enjoy a presumption of validity and a party alleging indefiniteness must support their position by clear and convincing evidence. *Microsoft Corp. v. i4i Ltd. P'ship*, 564 U.S. 91, 95 (2011). The use of a relative term or "words of degree" does not render a claim indefinite, *One-E-Way, Inc. v. Int'l Trade Comm'n*, 859 F.3d 1059, 1063 (Fed. Cir. 2017), so long as the word or term provides sufficient notice of its scope. *See Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1370–71 (Fed. Cir. 2014) (citation omitted) (noting that if a claim uses a term of degree, the court should determine if the patent's specifications provide some standard for measuring that degree or if the term's scope instead "depends on the unpredictable vagaries of any one person's opinion").

Upon review, the Court finds that Weber fails to satisfy their burden of showing, by clear and convincing evidence, that the disputed terms are indefinite. The terms relate to the ultimate benefit or advantage of the '005 Patent: a food conveyor system that is more easily adjusted and controlled to create a more efficient and cost-effective operation. The claim language requires a first and second electric motor, "operatively connected" to a controller, which "comprise precise positioning motors that provide precise positioning feedback" to that controller. (Doc. #147-3, p. 9, 6:50–63.) The increased precision and control achieved by the invention is further explained

in the specifications, which detail the various mechanical components and operations that control the speed and accuracy of the conveyor system:

The electric motors are preferably precise positioning motors, such as servomotors, that incorporate numerical encoders for precise control. For example, the motor 62 communicates exact positioning information or feedback to a controller 100 for precise control of the end of the conveyor during advancement and retraction. The motor communicates exact positioning information or feedback to the controller to ensure precise coordination between the belt speed and the forming machine patty-output speed.

(Doc. #147-3, p. 8, 4:36–47.) Given the explanation in the specifications for how precision can be improved and achieved within the context of the '005 Patent, the terms "precise" and "exact" are not boundless, nor does the breadth of the terms inherently render the claims indefinite. *See Ultimax Cement Mfg. Corp. v. CTS Cement Mfg. Corp.*, 587 F.3d 1339, 1352 (Fed. Cir. 2009) ("Merely claiming broadly does not render a claim insolubly ambiguous, nor does it prevent the public from understanding the scope of the patent.").

Additionally, the preferred embodiments identify the factors and components that can be used to calculate the optimal speeds at which the motors and conveyor belt should operate, which optimizes food product placement and increases the system's overall efficiency. (Doc. #147-3, p. 9, 5:56–67; 6:1–5) (detailing the various informational inputs used to calculate machine speed, conveyor belt movement and positioning). Considered in light of the other specifications, the patent as a whole sufficiently informs a skilled artisan of the level of precision needed to realize the touted benefits of this invention, as well as the objective factors to be considered and utilized in order to achieve such precision (e.g., speed of the conveyor belt, meat patty size, the speed of patty formation, etc.). While the claim language and specifications do not provide a formula for calculating the precision or exactness explained in the '005 Patent, such a granular level of detail is not required. See Invitrogen Corp. v. Biocrest Mfg., LP, 424 F.3d 1374, 1384 (Fed. Cir. 2005)

(citation omitted) ("a patentee need not define his invention with mathematical precision in order to comply with the definiteness requirement"). Taken together, the claims and the specifications of the '005 Patent would inform those skilled in the art of the scope of this invention.⁸

In sum, Weber does not meet their burden of showing, by clear and convincing evidence, that the disputed term is indefinite. The Court finds a person of ordinary skill in the art would be able to read the '005 Patent, apply the common understanding of the terms "precise" or "exact," and know the scope of the claims with reasonable certainty. While the claims or specifications do not identify a numerical range for precision or an error rate to define what constitutes "exact," "absolute certainty" is neither attainable nor required. *See Nautilus*, 572 U.S. at 910. The Court finds the words have plain and ordinary meanings easily understood by an ordinary person who is skilled in the art, and thus no further construction by the Court is required.

TERM	Construction
"precisely control"/ "precising positioning"/ "exact position"	plain and ordinary meaning

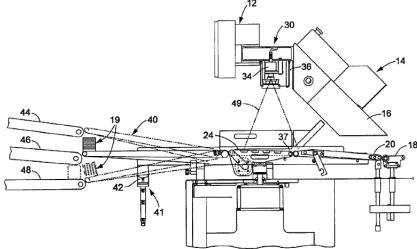
D. The '089 Patent

The final disputed terms appear in the '089 Patent, which describes an optical scanner that grades slices of food products. Broadly, this optical grading system, which is attached to a high-speed slicing machine, scans a slice or portion of a food product (e.g., a loaf of meat) and generates a pixelated image that calculates, among other things, the fat composition of a given food product. The sliced food product is then processed according to the results of that optical

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⁸ Neither party cites to any patent prosecution history in support of their position. Weber relies, in part, on the expert testimony of Dr. Charles Reinholtz to support their contention that an ordinary person skilled in the art would be unable to ascertain the full scope of these disputed terms. For example, Weber cites Dr. Reinholtz for the proposition that the terms "precise" and "exact" are not terms of art and that the specifications do not provide a sufficient baseline that would provide "any guidance on the necessary degree of preciseness and exactness needed to fall with the scope of the claims." (Doc. #147-5, pp. 21–22.) On balance, the Court does not find Dr. Reinholtz's declaration, without more, to be the "clear and convincing" evidence needed to establish indefiniteness under *Nautilus*.

scanning (e.g., accepted, rejected, subjected to additional handling). An illustrative drawing is



(Doc. #147-4, p. 2.)

below:

The PTAB instituted Weber's petition for IPR of the '089 Patent and subsequently issued a final written decision that invalided many of its asserted claims. (Doc. #118-1.) Following the PTAB's decision, only Claims 11 and 12 remain. Claims 11 and 12 are dependent claims which rely on the now-invalidated independent Claim 9, which contains the two disputed terms at issue in this particular patent. Consequently, the Court's discussion below considers the language of Claim 9 in construing the disputed terms.

1. Term VIII: "top slice"

The first disputed term in the '089 Patent is "top slice." The competing constructions advanced by the parties appear in the following table:

PROVISUR'S PROPOSED CONSTRUCTION	WEBER'S PROPOSED CONSTRUCTION
no construction necessary or, in the alternative, the plain and ordinary meaning, which does not require "topmost already cut slice"	

An illustrative example of the use of this term appears in Claim 9 which, as discussed earlier, the PTAB declared invalid but is the independent claim upon which Claim 11 and Claim 12 depend:

9. A system for classifying slices from a slicing machine based on fat content, comprising:

. . .

an image capturing device arranged above the conveyor, said image capturing device signal-connected to said control to input into said memory section a two-dimensional pixel field corresponding to an image captured of a surface area of a *top slice* of said stack of slices located on said conveyor, each pixel classified by said control as either a fat or lean portion of the surface area, depending on image, said control data processing section adapted to sum fat pixels and compare said sum of fat pixels to a predetermined limit[.]

(Doc. #147-4, p. 7, 6:37–38, 45–54) (emphasis added).

Weber argues a construction including the "already cut" language not only represents the plain meaning of the term "slice," but is supported by the specifications and prosecution history, which indicate that "a slice is something that is created by cutting." (Doc. #147, p. 29.) Provisur states defining "top slice" as the "topmost already cut slice" "injects unnecessary limitations into the claims based on an example in the specification." (Doc. #150, p. 33.) Provisur argues that the Court should decline to construe the term or, alternatively, adopt Provisur's position that the plain and ordinary meaning of the term "top slice" includes the yet-to-be-sliced face or surface area of a food loaf or a bulk food product. Based on the parties' briefing and arguments during the *Markman* hearing, the gravamen of this dispute appears to be what is the plain and ordinary meaning of the word "slice."

The Court begins with the plain meaning of the term "top slice." "Claim terms receive their ordinary and customary meaning unless the patentee assigns a special meaning." *Cortland Line Co. v. Orvis Co.*, 203 F.3d 1351, 1356 (Fed. Cir. 2000) (citing *Vitronics*, 90 F.3d at 1582); *accord Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1327 (Fed. Cir. 2003) ("We indulge a heavy presumption that a claim term carries its ordinary and customary meaning.").

The plain meaning of the term "slice," in its noun form, is "a thin broad piece cut from a larger

amount" or "a portion or share." (Doc. #147-22, p. 4.) The claim language itself support this interpretation. The '089 Patent repeatedly describes a "slice" or "slices" as being separate from the larger food product or bulk food loaf. For example, Claim 1 describes the patent's method for "classifying groups of slices collected in a stack after being cut from a food product," which includes "removing a plurality of slices from said food product by cutting[.]" (Doc. #147-4, p. 7, 5:48–52.) Claim 9, the same claim in which the disputed term appears, also describes a slicing apparatus that "cut[s] off a series of slices from a food loaf." (Doc. #147-4, p. 7, 6:39–40.) Once cut, a conveyor belt receives "said slices from said slicing apparatus in a stack of slices." (Doc. #147-4, p. 7, 6:41–42.) Even Claim 12, one of the few patent claims that the PTAB did not declare invalid, explains an image capturing device positioned "above the conveyor" and "directed downward on said stack [of slices] located on said . . . conveyor." (Doc. #147-4, p. 8, 7:1–2.) In each case, the usage of the word "slice" reinforces its customary meaning as a piece or portion cut from a larger whole. See Abbott Lab'ys v. Syntron Bioresearch, Inc., 334 F.3d 1343, 1351 (Fed. Cir. 2003) ("The usage of the disputed claim terms in the context of the claims as a whole also informs the proper construction of the terms.").

The specifications similarly describe the word "slice" in a manner that comports with this plain meaning. The summary of the invention describes a method of classifying slices "cut from a food product," comprised of the following steps: (1) "removing a slice from a food product by cutting," (2) "passing the slice into an image field of a digital image receiving device," and (3) "generating pixel-by-pixel image data of the slice using the digital image receiving device" that

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⁹ While these definitions appear in sources cited by Weber, identical definitions appear in other widely-available dictionaries. *See, e.g., slice*, MERRIAM-WEBSTER DICTIONARY, https://www.merriam-webster.com/dictionary/slice (last accessed August 6, 2021) (defining slice, in part, as "a thin flat piece cut from something"). Provisur does not cite or submit any dictionary or reference material in support of its proposed construction that "slice" includes a not-yet-cut portion of a larger amount.

is then used to classify and sort "said slice" according to a predetermined standard. (Doc. #147-4, p. 5, 1:61–67; 2:1–6.) The summary similarly details the patent system described in Claim 9, explaining that slices are "cut from the face of a food product loaf" and then deposited "onto a conveyor." (Doc. #147-4, p. 5, 2:6–28.) Indeed, a review of all specifications in the '089 Patent reveal no instance where "slice" is described as a piece of the food product that is still attached to the originating food product or loaf, the definition advanced by Provisur. Instead, the intrinsic record fully supports Weber's position that a "slice" is a piece already cut from the larger whole.

Provisur argues the plain and ordinary meaning of "slice," within the context of the '089 Patent, should be construed to include the face portion of a food product that has yet to be cut or separated from the originating bulk food product or loaf. (Doc. #150, p. 3.) Provisur does not identify, nor does the Court find, any claim language to support that contention. Provisur wholly and summarily references a lone specification which explains that "it is not necessary to image each and every slice in the stack or draft" in order to extrapolate the quality of the stack. (Doc. #147-4, p. 5, 2:63–65.) It is unclear how this cited specification supports Provisur's argument that the plain meaning of "slice" includes a portion of a yet-to-be-sliced food product. Indeed, while Provisur argues Weber's construction improperly limits the claim by defining a "slice" as something that is "already cut" from a bulk loaf or food product, Provisur essentially asks the Court to construe the '089 Patent's claims "to cover subject matter broader than that which the patentee itself regarded as comprising its inventions." *Multi-Tech Sys.*, 357 F.3d at 1349. The Court cannot do so, and it therefore declines Provisur's invitation to construe "slice" in a manner that is at odds with the term's plain meaning, particularly in light of the intrinsic record.

The parties dedicate the bulk of their briefing on this disputed term to the question of claim disavowal, looking to prosecution history of this patent to either support or undermine a

position regarding how the term "slice" should be construed. *See Chimie v. PPG Indus., Inc.*, 402 F.3d 1371, 1384 (Fed. Cir. 2005) (citation omitted) ("where the patentee has unequivocally disavowed a certain meaning to obtain his patent, the doctrine of prosecution disclaimer attaches and narrows the ordinary meaning of the claim congruent with the scope of the surrender"). The Court questions how persuasive the patent prosecution history should be, given that a majority of the '089 Patent's claims were invalidated by the PTAB. (Doc. #118-1). In any event, the patent prosecution history would not change the outcome, given how strongly the '089 Patent language and specifications support interpreting the term "slice" in a manner consistent with its plain and ordinary meaning (i.e., a portion cut or removed from the larger whole). If anything, the patent prosecution history undermines Provisur's position even further.

In sum, the Court finds the plain meaning of the term "slice" would be understood, even by a lay person but certainly by a person skilled in the art, as a piece or portion of a larger whole that has already been sliced. Additionally, the parties do not dispute that the plain meaning of the term "top" is also readily apparent and, as used within the context of the '089 Patent, means a particular slice in a stack of slices (more specifically, the slice on top of the stack). Accordingly, the Court adopts Weber's proposed construction and construes the term "top slice" as follows:

TERM	Construction
"top slice"	topmost already cut slice

2. Term IX: "input into said memory section a two-dimensional pixel field corresponding to an image captured of a surface area of a top slice of said stack of slices located on said conveyor"

Lastly, the parties seek construction of the disputed term "input into said memory section a two-dimensional pixel field corresponding to an image captured of a surface area of a top slice of said stack of slices located on said conveyor." The parties' constructions are below:

PROVISUR'S PROPOSED CONSTRUCTION	WEBER'S PROPOSED CONSTRUCTION
plain and ordinary meaning, which does not require "after slicing"	input into said memory section a two- dimensional pixel field corresponding to an image captured, after slicing, of a surface area of a [top slice] of the stack of slices located on the conveyor

This disputed phrase appears in Claim 9:

9. A system for classifying slices from a slicing machine based on fat content, comprising:

. . .

an image capturing device arranged above the conveyor, said image capturing device signal-connected to said control to *input into said memory section a two-dimensional pixel field corresponding to an image captured of a surface area of a top slice of said stack of slices located on said conveyor*[.]

(Doc. #147-4, p. 7, 6:37–38, 45–50) (emphasis added).

In its opening claim construction brief, Weber argues this disputed term separately from the prior term, "top slice." However, the arguments for both disputed terms are nearly identical: the phrase should be construed to include "already cut" to indicate that the image-capturing device scans the food product slices on the conveyor belt after they have been cut and removed from the originating food loaf or bulk food product. In its response, Provisur collectively argued the two disputed terms, contending a construction that requires "the image capturing to occur 'after slicing'... [is] overly narrow and contradicted by the specification." (Doc. #150, p. 33.)

Upon review, the Court finds its construction of the term "top slice," as discussed earlier, resolves the parties' dispute regarding this particular term. The crux of the dispute on this term is the same—whether the slice being scanned by the image-capturing device is separate from the originating food product or loaf. For the reasons discussed earlier, the intrinsic record is devoid of evidence that would support Provisur's position that "top slice" includes the face of a yet-to-be sliced bulk food product. Further, the Court finds it unnecessary to adopt Weber's proposed

construction, which is redundant in light of the Court's construction of the term "top slice" and the claim language as a whole. *See Vivid Techs.*, 200 F.3d at 803 (holding that only claim terms that are in controversy need to be construed and "only to the extent necessary to resolve the controversy"). The Court finds the plain and ordinary meaning of the terms used in this disputed phrase, combined with the Court's earlier construction of the term "top slice," fully resolves the parties' dispute and gives full effect to all of the words in this particular claim. The Court thus construes this disputed term as follows:

TERM	Construction
input into said memory section a two-	input into said memory section a two-
dimensional pixel field corresponding to an	dimensional pixel field corresponding to an
image captured of a surface area of a top slice	image captured of a surface area of a topmost
of said stack of slices located on said conveyor	already cut slice of said stack of slices located
	on said conveyor

IV. CONCLUSION

Accordingly, the Court **ORDERS** the constructions of the disputed terms as described herein.

IT IS SO ORDERED.

/s/ Stephen R. Bough STEPHEN R. BOUGH UNITED STATES DISTRICT JUDGE

DATE: August 12, 2021